

## Stay Well in Wales Super Profiles: Who thinks what about the nation's health

Sharp, Catherine; Hughes, Karen; Di Lemma, Lisa; Bellis, Mark

Published: 13/03/2019

Publisher's PDF, also known as Version of record

[Cyswllt i'r cyhoeddiad / Link to publication](#)

*Dyfyniad o'r fersiwn a gyhoeddwyd / Citation for published version (APA):*

Sharp, C., Hughes, K., Di Lemma, L., & Bellis, M. (2019). *Stay Well in Wales Super Profiles: Who thinks what about the nation's health*. Bangor University.

### Hawliau Cyffredinol / General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

### Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.



# Stay Well in Wales

## Super Profiles: Who thinks what about the nation's health





# Stay Well in Wales

## Super Profiles:

### Who thinks what about the nation's health



Catherine A. Sharp<sup>1</sup>, Karen Hughes<sup>1,2</sup>, Lisa C.G. Di Lemma<sup>2</sup> and Mark A. Bellis<sup>1,2</sup>



<sup>1</sup>Public Health Collaborating Unit  
School of Health Sciences  
Bangor University  
Wrexham Technology Park  
Wrexham LL13 7YP  
Tel: +44(0)1248 383519



<sup>2</sup>Policy and International Directorate, a World Health Organization Collaborating Centre on Investment for Health and Wellbeing  
Public Health Wales  
Clwydian House, Wrexham Technology Park  
Wrexham LL13 7YP  
Tel: +44(0)1978 318413

## Acknowledgements

We are very grateful to all the respondents who kindly completed the survey. We would like to thank BMG Research for undertaking the face-to-face data collection. We are grateful to colleagues from the Policy, Research and International Development Directorate at Public Health Wales who supported the development of the study and report production. Finally, we would also like to thank Dr Benjamin Gray and Dr Charlotte Grey who peer-reviewed and provided valuable comments on an earlier version of the report.

## Ethics

Public Health Wales Research and Development Office provided permission for the survey. Ethical approval for these analyses was received from Bangor University Healthcare and Medical Sciences Academic Ethics Committee.

ISBN 978-1-78986-051-1

© 2019 Public Health Wales NHS Trust, Bangor University.

Material contained in this document may be reproduced under the terms of the Open Government Licence (OGL) [www.nationalarchives.gov.uk/doc/open-government-licence/version/3/](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/) provided it is done so accurately and is not used in a misleading context. Acknowledgement to Public Health Wales NHS Trust to be stated. Copyright in the typographical arrangement, design and layout belongs to Public Health Wales NHS Trust, Bangor University.

## Funded by Public Health Wales

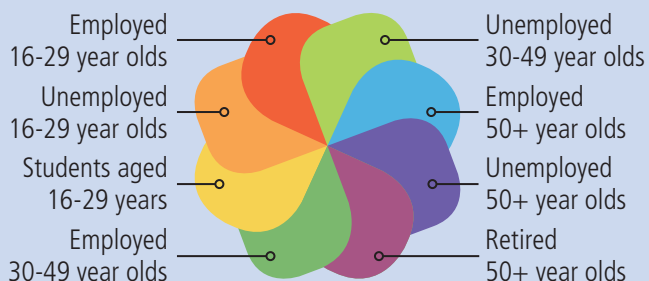
Public Health Wales is an NHS organisation providing professionally independent public health advice and services to protect and improve the health and wellbeing of the population of Wales. Production of this report was funded by Public Health Wales. The funded authors worked collaboratively with Public Health Wales, however, the views in this report should not be assumed the same as those of Public Health Wales.

# Stay Well in Wales Super Profiles

## Who thinks what about the nation's health

Using a household and online survey, the views of 3,310 individuals in Wales (aged 16+ years) on 19 public health statements were gathered. Eight demographic and five health-related behaviour super profiles were created to explore differences in opinions across population groups.

### Super profile categories



The adjusted proportion<sup>a</sup> within each profile that agreed<sup>b</sup> with the statement is shown within the respective coloured segment.

The central figure shows the proportion of the nationally representative sample who agreed with the statement, with the proportions who disagreed and had no opinion shown below.

People who reported the health-harming behaviours<sup>c</sup> shown in the arrows had lower levels of agreement with the statement.



Binge drinking



Smoking



Poorer health

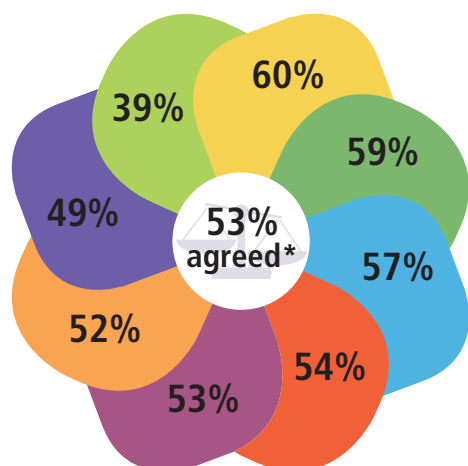


Physical inactivity



Poorer diet

### The NHS should spend less on treating illness and more on preventing it

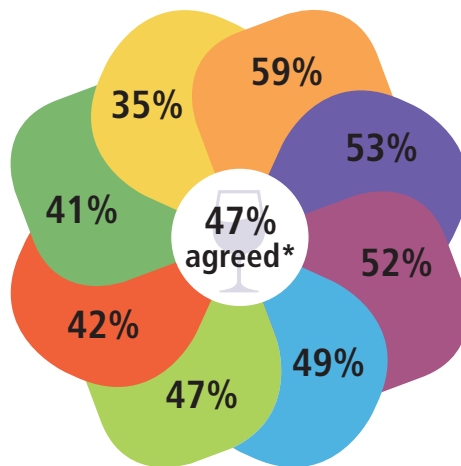


\*15% disagreed; 32% no opinion



Less agreement

### Alcohol advertising should be banned to prevent alcohol problems

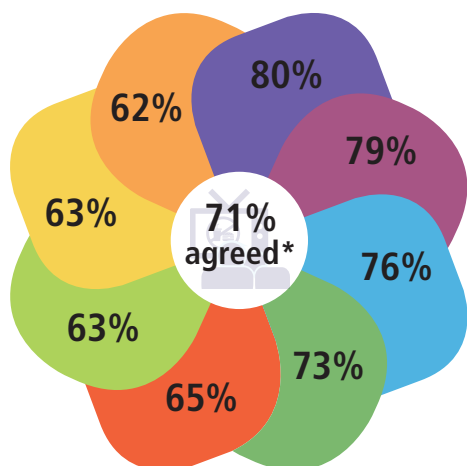


\*26% disagreed; 27% no opinion



Less agreement

### Junk food advertising should be banned to reduce childhood obesity

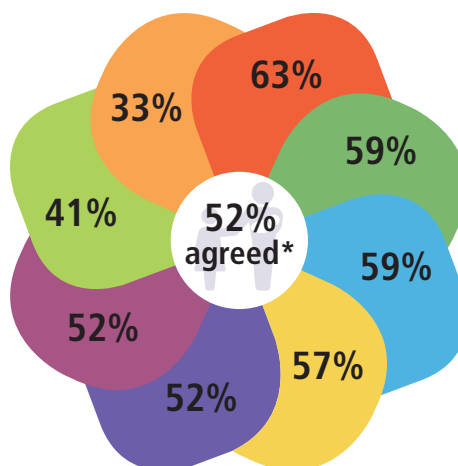


\*13% disagreed; 16% no opinion



Less agreement

### Parents should be given professional advice on how to raise their children well



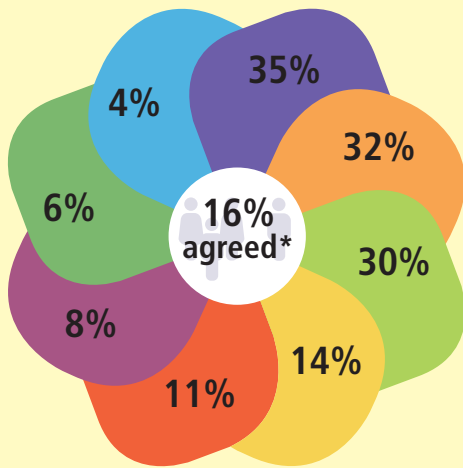
\*23% disagreed; 25% no opinion



Less agreement

<sup>a</sup> Proportion adjusted by gender and survey method <sup>b</sup> Either agree or strongly agree. Other response options were 'neither agree nor disagree' categorised as no opinion, and 'disagree' or 'strongly disagree' categorised as disagree. <sup>c</sup> Please see report for the definitions of the health-harming behaviours.

## I often feel isolated in my local community

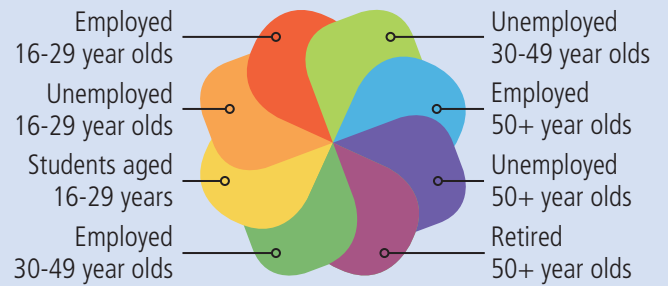


\*71% disagreed; 13% no opinion

More agreement



## Super profile categories



Binge drinking



Smoking



Poorer health

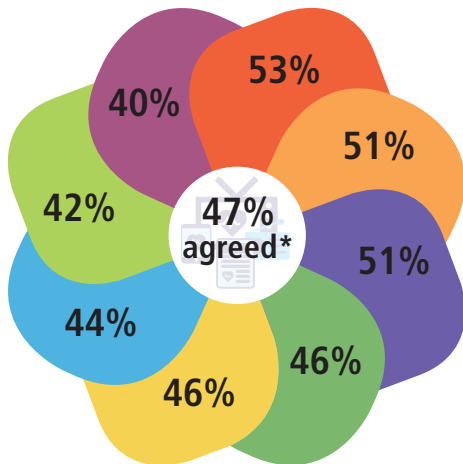


Physical inactivity



Poorer diet

## I would like more public information campaigns on how to live a healthier life

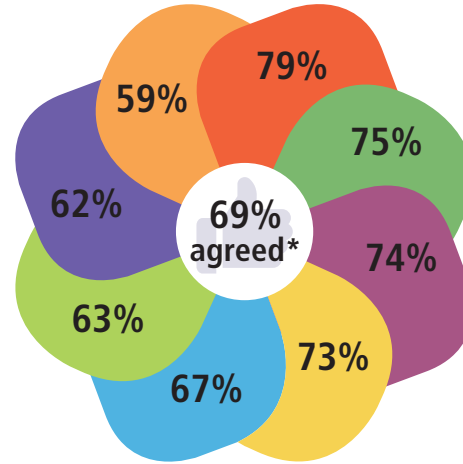


\*27% disagreed; 26% no opinion



Less agreement

## I am confident that if I got ill the NHS would meet my healthcare needs

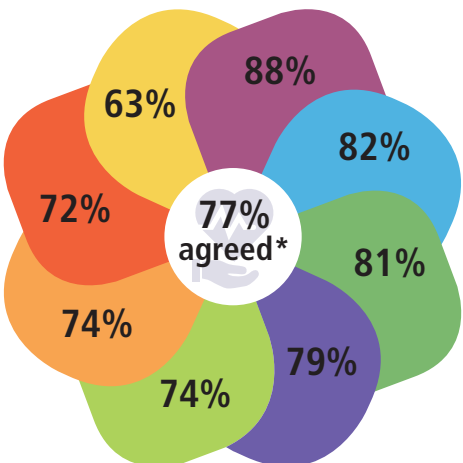


\*18% disagreed; 14% no opinion



Less agreement

## People should look after themselves, it's not the job of public services

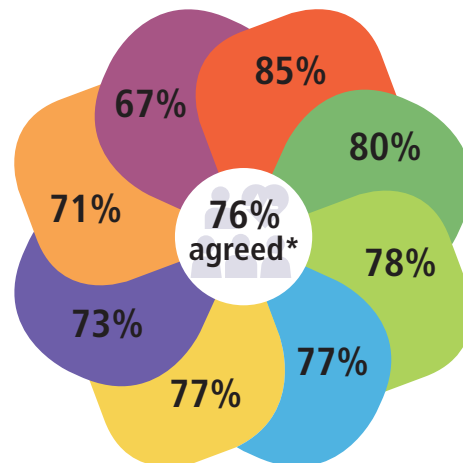


\*7% disagreed; 17% no opinion



Less agreement

## Employers should do more to look after their workers' health



\*8% disagreed; 16% no opinion



Less agreement

# Contents

<b>Introduction</b>	<b>2</b>
<b>Methodology</b>	<b>2</b>
<b>Findings</b>	
Employed 16-29 year olds	5
Unemployed 16-29 year olds	6
Students aged 16-29 years	7
Employed 30-49 year olds	8
Unemployed 30-49 year olds	9
Employed 50+ year olds	10
Unemployed 50+ year olds	11
Retired 50+ year olds	12
Summary of demographic super profiles	13
Binge drinking frequency	14
Smoking status	15
Physical activity levels	16
Fruit and vegetable consumption	17
Self-reported general health	18
Summary of health-related behaviour super profiles	19
<b>Discussion</b>	<b>20</b>
<b>References</b>	<b>21</b>
<b>Appendix: Data tables</b>	<b>22</b>

## Introduction

**Public involvement in policy making has become increasingly important.**<sup>1</sup> In Wales, the *Well-being of Future Generations (Wales) Act 2015*<sup>2</sup> recognised this and identified the public as a key stakeholder in decision-making. **The Stay Well in Wales survey**<sup>3</sup> was designed to capture the views of individuals living in Wales on a range of public health issues in order to inform the development of Public Health Wales' long-term strategy. Public Health Wales is the national public health institute for Wales and works to protect and improve health and wellbeing and reduce health inequalities for people in Wales. The Stay Well in Wales survey was conducted in September and October 2017 by Public Health Wales and Bangor University. Face-to-face interviews with a nationally representative household sample (n = 1,001) were undertaken along with an online survey (n = 2,309) open to all residents of Wales aged 16 years and over. Results from the nationally representative household survey were published in February 2018.<sup>3</sup> These found the Welsh public to be strongly in favour of preventative approaches to improve the health of the population, for example,

- 88% of people agreed that *schools should teach children more about how to live a healthier life*
- 82% of people agreed that *healthy foods should cost a bit less and unhealthy foods a bit more*.

This second report uses data from both the household and online surveys to present views on public health among different population **profiles**, *based on employment and age status, and on health-related behaviours*.

## Methodology

**For the household survey**, 3,041 randomly selected households were informed of the study by letter; 182 (6%) opted out at this stage. Three quarters (76%) of eligible households visited by interviewers agreed to participate. A final sample of 1,001 individuals completed the questionnaire. The questionnaire was adapted from public opinion surveys which have been administered in other countries.<sup>4-6</sup> A professional marketing company undertook the face-to-face survey and all interviews were conducted in line with the Market Research Society (MRS) Code of Conduct. This survey method provided nationally representative sample data from the general population of Wales.

**For the online survey**, a website was created to host the survey, which was shared widely via stakeholders, staff, news channels and social media for anyone interested in participating. The online survey was open for four weeks. A total of 2,309 individuals submitted completed questionnaires with all the required demographic information (i.e. age, gender and employment status). This survey method enabled as many individuals in Wales as wished to contribute to have their say.

The **final combined sample** includes responses from 3,310 individuals (see Appendix Table A-1). The survey captured the public's opinions on: what they perceive to be the largest contributors to poor health and wellbeing (objective 1); which public health issues they think require more action by public services (objective 2); where they source their information about how to stay healthy and well from (objective 3); and their perspectives on a range of public health statements (objective 4). A range of demographic and health-related behaviour questions were also asked.

**In this report, we explore opinions on 19 public health statements (objective 4) across eight demographic and five health-related behaviour super profiles.** Super profiles are based on the combined views of demographically (not geographically) defined groups. The 19 statements focused on four overarching themes (see Box 1). Respondents were asked how much they agreed with each statement using a 5-point Likert scale (response options: *strongly disagree*, *disagree*, *neither disagree nor agree*, *agree*, *strongly agree*).

**Box 1.** The four overarching themes of the 19 public health statements the public's opinion was sought on:

- Public health **policies**
- Public health **support structures**
- **Healthcare** and Public Health
- **Wellbeing**.








The eight demographic super profiles presented are: employed 16-29 year olds, unemployed 16-29 year olds, students aged 16-29 years, employed 30-49 year olds, unemployed 30-49 year olds, employed 50+ year olds, unemployed 50+ year olds and retired 50+ year olds. Respondents were categorised as employed if they reported working full-time, part-time or being self-employed; and they were categorised as unemployed if they reported being unemployed, a carer, on long-term sick or disabled. Findings for each demographic super profile are compared with those from the nationally representative sample collected by face-to-face interview<sup>a,3</sup>. Information on the health-related behaviours reported by each demographic super profile is also provided for context<sup>b</sup>.

The five health-related behaviour super profiles presented are: binge drinking frequency, smoking status, physical activity levels, fruit and vegetable consumption and self-reported general health. A single question was asked for each health-related behaviour, with responses categorised into three groups for analyses (see Box 2).

A description of the process undertaken to analyse the data is presented in Box 3.

**Box 2.** Single questions asked to obtain health-related behaviour information

Outcome	Symbol	Question	Categories (Responses)
<b>Binge drinking frequency*</b>		In the last year how often have you had 6 or more alcoholic drinks in a single drinking occasion?	Regularly ( <i>daily; weekly</i> ) Occasionally ( <i>monthly; less than monthly</i> ) Never ( <i>never; I don't drink at all</i> )
<b>Smoking status</b>		In terms of smoking tobacco, which of the following best describes you?	Current ( <i>I smoke daily; I smoke occasionally but not daily</i> ) Ex-smoker ( <i>I used to smoke but do not smoke at all now</i> ) Never ( <i>I have never smoked</i> )
<b>Physical activity levels</b>		On how many days each week do you engage in at least 30 minutes physical activity (enough to make you out of breath and sweat)?	0-1 day ( <i>never; 1 day or less</i> ) 2-4 days ( <i>2-4 days</i> ) 5+ days ( <i>5 days or more</i> )
<b>Fruit and vegetable consumption</b>		On a normal day, how many portions of fruit and vegetables (excluding potatoes) would you usually eat (one portion is roughly one handful)?	0-2 portions ( <i>0; 1; 2</i> ) 3-4 portions ( <i>3; 4</i> ) 5+ portions ( <i>5 or more</i> )
<b>Self-reported general health†</b>		If 100 is the best state of health you could possibly imagine and 0 is the worst state of health you can imagine, how good or bad is your own health generally?	Low ( <i>0-65; ≤ 25<sup>th</sup> percentile</i> ) Average ( <i>66-87; ≥ 25<sup>th</sup> - &lt; 75<sup>th</sup> percentile</i> ) High ( <i>88-100; ≥ 75<sup>th</sup> percentile</i> ) ( <i>response derived from 0-100 visual analogue scale</i> )
*Question drawn from AUDIT C tool <sup>7</sup>		†Question adapted from the EQ-5D-Q <sup>8</sup>	

a Due to small differences in weighting and other mathematical processes, national percentages presented in this report may differ by up to 1% from those presented in the first Stay Well in Wales Report.

b Health-related behaviour data for survey participants included in each demographic super profile is provided for context only. Such behavioural data should not be interpreted as being nationally representative.



**Box 3. Data analysis**

Data analysis was conducted using IBM SPSS v24. Demographic super profiles were created based on age and employment status. Insufficient postcode data was provided by respondents to enable use of the Welsh Index of Multiple Deprivation. To explore differences in opinions on public health statements between demographic super profiles, adjusted means (estimated marginal means) were calculated through generalized linear modelling (controlling for gender and survey method). To correct for bias in the online sample, estimated marginal means (and 95% confidence intervals) were further adjusted for each question to account for the difference in mean responses between the combined sample and that of the nationally representative sample (see Appendix Table A-2 for nationally representative sample 95% confidence intervals).

Findings for each demographic super profile are compared to those from the nationally representative sample, weighted to reflect the Welsh national population (aged 16 years and over)<sup>c</sup>. Significant differences between the demographic super profiles and the nationally representative sample were determined by no overlap between 95% confidence intervals; these have been included in the Appendix (Table A-3). In addition, 10% differences between the demographic super profiles and the nationally representative sample have also identified. For each demographic profile, the proportion who reported each health-related behaviour is shown. Due to rounding, values may not always total 100%.

Adjusted means were calculated to identify any differences in opinions based on health-related behaviours (through generalized linear modelling controlling for age and employment status; gender; and survey method; 95% confidence intervals are reported in the Appendix Tables A-4 to A-8). Pairwise comparisons were undertaken to identify significant differences between categories within each health-related behaviour group (with Least Significant Difference (LSD) correction).

# Employed 16-29 year olds

Employed 16-29 year olds accounted for 9% of the total sample. Table 1 shows the proportion who agreed with each public health statement and compares findings to those for the nationally representative sample (see Appendix Table A-3 for 95% confidence intervals). The opinions of this super profile differed significantly from those of the nationally representative sample for five of the statements. Employed 16-29 year olds showed greater support for *providing parents with professional advice on raising their children well*, for *employers doing more to look after their workers' health*, and they were more confident that *the NHS would meet their healthcare needs if they got ill*. However, they were less supportive of *20mph speed limits where they will reduce road traffic injuries* and that *advertising of unhealthy foods to children should be banned to reduce childhood obesity*; although two thirds still agreed with these statements. For two of the statements (*parenting advice*, *20mph speed limits*), proportions differed from the nationally representative sample by 10% or more.

Box 4 shows the health-related behaviours of employed 16-29 year olds surveyed. Two thirds had never smoked and the majority were categorised as being in average to high health. However, only 20-22% met the guidelines for physical activity levels and fruit and vegetable consumption.



**Box 4. Health-related behaviours of employed 16-29 year olds surveyed (n = 306)<sup>d</sup>**

	10% Regular	62% Occasional	28% Never
	16% Current	16% Ex-smoker	67% Never
	32% 0-1 day	49% 2-4 days	20% 5+ days
	35% 0-2 portions	42% 3-4 portions	22% 5+ portions
	21% Low	49% Average	30% High

**Table 1. Adjusted proportion of employed 16-29 year olds who agreed\* with each public health statement, compared with the nationally representative sample**

Public Health Statements		Employed 16-29 year olds	Nationally representative sample
Policies	The NHS should spend less on treating illness and more on preventing it	54%	53%
	Advertising of alcohol should be banned to reduce alcohol problems	42%	47%
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	65%	71% *
	Healthy foods should cost a bit less and unhealthy foods a bit more	85%	83%
	Companies and individuals should be made to adopt behaviours to reduce climate change	73%	67%
	I support 20mph speed limits where they will reduce road traffic injuries	66%	76% * ♣
Support structures	I would like more public information campaigns on how to live a healthier life	53%	47%
	Schools should teach children more about how to live a healthy life	90%	88%
	Parents should be given professional advice on how to raise their children well	63%	52% * ♣
	A safe and loving childhood is essential to becoming a healthy adult	85%	87%
	Employers should do more to look after their workers' health	85%	76% *
	People should keep themselves healthy, it's not the job of public services	72%	77%
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	79%	69% *
	I worry when I visit hospital that I might pick up an infection	30%	35%
	When I see my GP they usually talk to me about how to live a healthier life	30%	34%
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	36%	36%
Wellbeing	I often feel isolated in my local community	11%	16%
	I feel safe and secure in my local community	87%	85%
	Generally, I feel optimistic about life	91%	85%
‡Either agreed or strongly agreed * Significant difference (p < .05) between the super profile and nationally representative sample ♣ ≥10% difference between the super profile and nationally representative sample			

<sup>d</sup> Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

# Unemployed 16-29 year olds

Unemployed 16-29 year olds accounted for just 1% of the sample, meaning findings for this super profile should be interpreted with care. Table 2 shows the proportion that agreed with each public health statement (see Appendix Table A-3). There were no significant differences from the nationally representative sample, potentially due to the small sample. However, for eight statements, a 10% or greater difference from the nationally representative sample was found. Compared with the nationally representative sample, unemployed 16-29 year olds were more supportive that *advertising of alcohol should be banned to reduce alcohol problems*. They were less supportive that *companies and individuals should be made to adopt behaviours to reduce climate change*, that *parents should be given professional advice on how to raise their children well*, and that *they are confident that when they get ill the NHS would meet their healthcare needs*. They were also less likely to feel safe and secure in their local community and feel optimistic about life, and more likely to feel isolated in their local community.

Box 5 shows the health-related behaviours of unemployed 16-29 year olds surveyed. This group were largely engaging in an unhealthy lifestyle. Nearly half were current smokers, reported little or no physical activity, and reported low general health. Over 60% consumed little or no fruit and vegetables.



**Box 5. Health-related behaviours of unemployed 16-29 year olds surveyed (n = 36)<sup>d</sup>**

	11% Regular	50% Occasional	39% Never
	47% Current	17% Ex-smoker	36% Never
	42% 0-1 day	28% 2-4 days	30% 5+ days
	61% 0-2 portions	25% 3-4 portions	14% 5+ portions
	44% Low	44% Average	11% High

**Table 2. Adjusted proportion of unemployed 16-29 year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample**

Public Health Statements		Unemployed 16-29 year olds	Nationally representative sample	
Policies	The NHS should spend less on treating illness and more on preventing it	52%	53%	
	Advertising of alcohol should be banned to reduce alcohol problems	59%	47%	◆
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	62%	71%	
	Healthy foods should cost a bit less and unhealthy foods a bit more	79%	83%	
	Companies and individuals should be made to adopt behaviours to reduce climate change	54%	67%	◆
	I support 20mph speed limits where they will reduce road traffic injuries	68%	76%	
Support structures	I would like more public information campaigns on how to live a healthier life	51%	47%	
	Schools should teach children more about how to live a healthy life	85%	88%	
	Parents should be given professional advice on how to raise their children well	33%	52%	◆
	A safe and loving childhood is essential to becoming a healthy adult	91%	87%	
	Employers should do more to look after their workers' health	71%	76%	
	People should keep themselves healthy, it's not the job of public services	74%	77%	
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	59%	69%	◆
	I worry when I visit hospital that I might pick up an infection	39%	35%	
	When I see my GP they usually talk to me about how to live a healthier life	44%	34%	◆
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	32%	36%	
Wellbeing	I often feel isolated in my local community	32%	16%	◆
	I feel safe and secure in my local community	66%	85%	◆
	Generally, I feel optimistic about life	72%	85%	◆
‡Either agreed or strongly agreed		◆ Significant difference (p < .05) between the super profile and nationally representative sample ◆ ≥10% difference between the super profile and nationally representative sample		

## Students aged 16-29 years

Three percent of the sample were students aged 16-29 years, therefore findings for this super profile should be interpreted with care. Table 3 shows the proportion agreeing with each public health statement (see Appendix Table A-3). Responses to two statements differed significantly from those of the nationally representative sample. Students aged 16-29 years were significantly less supportive that *people should keep themselves healthy, it's not the job of public services* and that *they worry when they visit hospital that they might pick up an infection*.

For the two statements above, responses differed from the nationally representative sample by 10% or more. Thus, students aged 16-29 years were also (but not significantly) less supportive that *advertising of alcohol should be banned to reduce alcohol problems*, that *they feel safe and secure in their local community* and that *they feel optimistic about life*.

Box 6 shows the health-related behaviours of the students aged 16-29 years surveyed. This group predominantly reported average to high health and 72% had never smoked, however, 66% were regular or occasional binge drinkers.



**Box 6. Health-related behaviours of students aged 16-29 years surveyed (n = 108)<sup>d</sup>**

	7% Regular	59% Occasional	33% Never
	20% Current	8% Ex-smoker	72% Never
	32% 0-1 day	55% 2-4 days	13% 5+ days
	39% 0-2 portions	44% 3-4 portions	17% 5+ portions
	27% Low	55% Average	30% High

**Table 3. Adjusted proportion of students aged 16-29 years who agreed\* with each public health statement, compared with the nationally representative sample**

Public Health Statements		Students aged 16-29 years	Nationally representative sample
Policies	The NHS should spend less on treating illness and more on preventing it	60%	53%
	Advertising of alcohol should be banned to reduce alcohol problems	35%	47% <span>◆</span>
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	63%	71%
	Healthy foods should cost a bit less and unhealthy foods a bit more	85%	83%
	Companies and individuals should be made to adopt behaviours to reduce climate change	61%	67%
	I support 20mph speed limits where they will reduce road traffic injuries	71%	76%
Support structures	I would like more public information campaigns on how to live a healthier life	46%	47%
	Schools should teach children more about how to live a healthy life	93%	88%
	Parents should be given professional advice on how to raise their children well	57%	52%
	A safe and loving childhood is essential to becoming a healthy adult	82%	87%
	Employers should do more to look after their workers' health	77%	76%
	People should keep themselves healthy, it's not the job of public services	63%	77% <span>*◆</span>
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	73%	69%
	I worry when I visit hospital that I might pick up an infection	15%	35% <span>*◆</span>
	When I see my GP they usually talk to me about how to live a healthier life	33%	34%
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	37%	36%
Wellbeing	I often feel isolated in my local community	14%	16%
	I feel safe and secure in my local community	75%	85% <span>◆</span>
	Generally, I feel optimistic about life	74%	85% <span>◆</span>
‡Either agreed or strongly agreed * Significant difference (p < .05) between the super profile and nationally representative sample ◆ ≥10% difference between the super profile and nationally representative sample			

<sup>d</sup> Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.



# Employed 30-49 year olds

Across all participants, 39% were employed 30-49 year olds. Table 4 shows the proportion who agreed with each public health statement (see Appendix Table A-3). Compared with the nationally representative sample, seven significant differences were identified. Employed 30-49 year olds were more supportive that *companies and individuals should be made to adopt behaviours to reduce climate change*; that *they support 20mph speed limits where they will reduce road traffic injuries*; and that *parents should be given professional advice on how to raise their children well*. They were also more confident that *if they got ill the NHS would meet their healthcare needs*.

The group were more likely to agree that *they feel safe and secure in their local community* and *feel optimistic about life*, and less likely to agree that *they feel isolated in their local community*. The difference between this super profile and the nationally representative sample for the latter two statements was greater than 10%.

Box 7 shows the health-related behaviours of employed 30-49 year olds surveyed. The majority reported average to high health (81%) and most consumed 3+ portions of fruit and vegetables a day (77%). Over a third reported low levels of physical activity (35%).



**Box 7. Health-related behaviours of employed 30-49 year olds surveyed (n = 1,289)<sup>d</sup>**

	12% Regular	56% Occasional	32% Never
	13% Current	26% Ex-smoker	62% Never
	35% 0-1 day	48% 2-4 days	17% 5+ days
	24% 0-2 portions	48% 3-4 portions	29% 5+ portions
	19% Low	54% Average	27% High

**Table 4. Adjusted proportion of employed 30-49 year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample**

Public Health Statements		Employed 30-49 year olds	Nationally representative sample	
Policies	The NHS should spend less on treating illness and more on preventing it	59%	53%	
	Advertising of alcohol should be banned to reduce alcohol problems	41%	47%	
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	73%	71%	
	Healthy foods should cost a bit less and unhealthy foods a bit more	85%	83%	
	Companies and individuals should be made to adopt behaviours to reduce climate change	75%	67%	*
	I support 20mph speed limits where they will reduce road traffic injuries	82%	76%	*
Support structures	I would like more public information campaigns on how to live a healthier life	46%	47%	
	Schools should teach children more about how to live a healthy life	88%	88%	
	Parents should be given professional advice on how to raise their children well	59%	52%	*
	A safe and loving childhood is essential to becoming a healthy adult	89%	87%	
	Employers should do more to look after their workers' health	80%	76%	
Healthcare	People should keep themselves healthy, it's not the job of public services	81%	77%	
	I am confident that if I got ill the NHS would meet my healthcare needs	75%	69%	*
	I worry when I visit hospital that I might pick up an infection	34%	35%	
	When I see my GP they usually talk to me about how to live a healthier life	31%	34%	
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	36%	36%	
Wellbeing	I often feel isolated in my local community	6%	16%	*🏠
	I feel safe and secure in my local community	93%	85%	*
	Generally, I feel optimistic about life	96%	85%	*🏠
‡Either agreed or strongly agreed		* Significant difference (p < .05) between the super profile and nationally representative sample 🏠 ≥10% difference between the super profile and nationally representative sample		

# Unemployed 30-49 year olds

Unemployed 30-49 year olds accounted for only 3% of the sample meaning findings for this super profile should be interpreted with care. The proportion agreeing with each public health statement is shown in Table 5 (see Appendix Table A-3). Significant differences from the nationally representative sample were found for three statements. Unemployed 30-49 year olds felt more isolated in their local community, but less supportive that the *NHS should spend less on treating illness and more on preventing it* and that they feel *optimistic about life*.

Although not significantly different, unemployed 30-49 year olds were substantially less likely to agree that *parents should be given professional advice on how to raise their children well* (difference greater than 10%).

Box 8 shows the health-related behaviours of unemployed 30-49 year olds surveyed. Over two thirds reported low general health, 42% were regular or occasional binge drinkers, and 35% were current smokers.



**Box 8. Health-related behaviours of unemployed 30-49 year olds surveyed (n = 106)<sup>d</sup>**

	10% Regular	32% Occasional	58% Never
	35% Current	29% Ex-smoker	36% Never
	51% 0-1 day	26% 2-4 days	23% 5+ days
	42% 0-2 portions	41% 3-4 portions	18% 5+ portions
	69% Low	22% Average	9% High

**Table 5. Adjusted proportion of unemployed 30-49 year olds who agreed\* with each public health statement, compared with the nationally representative sample**

Public Health Statements		Unemployed 30-49 year olds	Nationally representative sample	
Policies	The NHS should spend less on treating illness and more on preventing it	39%	53%	*🏠
	Advertising of alcohol should be banned to reduce alcohol problems	47%	47%	
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	63%	71%	
	Healthy foods should cost a bit less and unhealthy foods a bit more	83%	83%	
	Companies and individuals should be made to adopt behaviours to reduce climate change	75%	67%	
	I support 20mph speed limits where they will reduce road traffic injuries	85%	76%	
Support structures	I would like more public information campaigns on how to live a healthier life	42%	47%	
	Schools should teach children more about how to live a healthy life	84%	88%	
	Parents should be given professional advice on how to raise their children well	41%	52%	🏠
	A safe and loving childhood is essential to becoming a healthy adult	85%	87%	
	Employers should do more to look after their workers' health	78%	76%	
	People should keep themselves healthy, it's not the job of public services	74%	77%	
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	63%	69%	
	I worry when I visit hospital that I might pick up an infection	44%	35%	
	When I see my GP they usually talk to me about how to live a healthier life	34%	34%	
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	37%	36%	
Wellbeing	I often feel isolated in my local community	30%	16%	*🏠
	I feel safe and secure in my local community	77%	85%	
	Generally, I feel optimistic about life	68%	85%	*🏠
‡Either agreed or strongly agreed		* Significant difference (p < .05) between the super profile and nationally representative sample 🏠 ≥10% difference between the super profile and nationally representative sample		

<sup>d</sup> Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

# Employed 50+ year olds

A quarter (25%) of the sample were employed 50+ year olds. The proportion of this super profile that agreed with each public health statement is shown in Table 6 (see Appendix Table A-3). There were significant differences from the nationally representative sample for four statements. Employed 50+ year olds showed greater support for *providing parents with professional advice on raising their children well*.

This profile was more likely to agree that they *feel safe and secure in their local community* and *optimistic about life*, and less likely to agree they often *feel isolated in their local community*. Differences of 10% or more were found for two of the wellbeing statements.

Box 9 shows the health-related behaviours of employed 50+ year olds surveyed. The majority reported average or high general health (80%) and having never smoked or being an ex-smoker (90%), while over half were regular or occasional binge drinkers (56%).



**Box 9. Health-related behaviours of employed 50+ year olds surveyed (n = 832)<sup>d</sup>**

	12% Regular	44% Occasional	44% Never
	10% Current	30% Ex-smoker	60% Never
	36% 0-1 day	41% 2-4 days	23% 5+ days
	19% 0-2 portions	43% 3-4 portions	38% 5+ portions
	20% Low	49% Average	31% High

**Table 6. Adjusted proportion of employed aged 50+ year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample**

Public Health Statements		Employed 50+ year olds	Nationally representative sample	
Policies	The NHS should spend less on treating illness and more on preventing it	57%	53%	
	Advertising of alcohol should be banned to reduce alcohol problems	49%	47%	
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	76%	71%	
	Healthy foods should cost a bit less and unhealthy foods a bit more	83%	83%	
	Companies and individuals should be made to adopt behaviours to reduce climate change	69%	67%	
	I support 20mph speed limits where they will reduce road traffic injuries	77%	76%	
Support structures	I would like more public information campaigns on how to live a healthier life	44%	47%	
	Schools should teach children more about how to live a healthy life	87%	88%	
	Parents should be given professional advice on how to raise their children well	59%	52%	*
	A safe and loving childhood is essential to becoming a healthy adult	87%	87%	
	Employers should do more to look after their workers' health	77%	76%	
	People should keep themselves healthy, it's not the job of public services	82%	77%	
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	67%	69%	
	I worry when I visit hospital that I might pick up an infection	36%	35%	
	When I see my GP they usually talk to me about how to live a healthier life	31%	34%	
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	37%	36%	
Wellbeing	I often feel isolated in my local community	4%	16%	*◆
	I feel safe and secure in my local community	93%	85%	*
	Generally, I feel optimistic about life	95%	85%	*◆
‡Either agreed or strongly agreed		* Significant difference (p < .05) between the super profile and nationally representative sample ◆ ≥10% difference between the super profile and nationally representative sample		



# Unemployed 50+ year olds

Unemployed 50+ year olds accounted for only 3% of the sample, therefore findings for this super profile should be interpreted with care. Table 7 shows the proportion of unemployed 50+ year olds agreeing with each public health statement (see Appendix Table A-3). Compared with the nationally representative sample, only one significant difference was found; unemployed 50+ year olds were more likely to *feel isolated in their local community*. Over a third of unemployed 50+ year olds agreed with this statement (35%, compared with 16% in the nationally representative sample).

Box 10 shows the health-related behaviours of unemployed 50+ year olds surveyed. This group were largely not engaging in a healthy lifestyle; 36% were current smokers, 12% were regular binge drinkers and 59% were engaging in low levels of physical activity (0-1 days). In addition, two thirds (67%) reported having low general health.



**Box 10. Health-related behaviours of unemployed 50+ year olds surveyed (n = 106)<sup>d</sup>**

	12% Regular	28% Occasional	59% Never
	36% Current	25% Ex-smoker	39% Never
	59% 0-1 day	27% 2-4 days	14% 5+ days
	42% 0-2 portions	40% 3-4 portions	19% 5+ portions
	67% Low	25% Average	8% High

**Table 7. Adjusted proportion of unemployed 50+ year olds who agreed\* with each public health statement, compared with the nationally representative sample**

Public Health Statements		Unemployed 50+ year olds	Nationally representative sample	
Policies	The NHS should spend less on treating illness and more on preventing it	49%	53%	
	Advertising of alcohol should be banned to reduce alcohol problems	53%	47%	
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	80%	71%	
	Healthy foods should cost a bit less and unhealthy foods a bit more	87%	83%	
	Companies and individuals should be made to adopt behaviours to reduce climate change	63%	67%	
	I support 20mph speed limits where they will reduce road traffic injuries	79%	76%	
Support structures	I would like more public information campaigns on how to live a healthier life	51%	47%	
	Schools should teach children more about how to live a healthy life	90%	88%	
	Parents should be given professional advice on how to raise their children well	52%	52%	
	A safe and loving childhood is essential to becoming a healthy adult	89%	87%	
	Employers should do more to look after their workers' health	73%	76%	
	People should keep themselves healthy, it's not the job of public services	79%	77%	
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	62%	69%	
	I worry when I visit hospital that I might pick up an infection	44%	35%	
	When I see my GP they usually talk to me about how to live a healthier life	38%	34%	
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	35%	36%	
Wellbeing	I often feel isolated in my local community	35%	16%	* 🏠
	I feel safe and secure in my local community	83%	85%	
	Generally, I feel optimistic about life	76%	85%	*
*Either agreed or strongly agreed		* Significant difference (p < .05) between the super profile and nationally representative sample 🏠 ≥10% difference between the super profile and nationally representative sample		

<sup>d</sup> Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

# Retired 50+ year olds

Retired 50+ year olds accounted for 16% of the sample. Table 8 shows the proportion of this super profile who agreed with each public health statement (see Appendix Table A-3). Significant differences from the nationally representative sample were found for six statements. Retired 50+ year olds were more supportive that *advertising of unhealthy foods to children should be banned to reduce childhood obesity* and that *people should keep themselves healthy, it's not the job of public services*. They were less supportive that *employers should do more to look after their workers' health*.

Retired 50+ year olds were more likely to *feel optimistic about life* and *feel safe and secure in their local community*, and less likely to *feel isolated in their local community*, with differences for the latter two statements being greater than 10%.

Box 11 shows the health-related behaviours of retired 50+ year olds surveyed. This group largely engaged in a healthy lifestyle; nearly half had never smoked (49%), the majority reported never binge drinking (73%) and most were consuming 3+ portions of fruit and vegetables a day (77%).



**Box 11. Health-related behaviours of retired 50+ year olds surveyed (n = 527)<sup>d</sup>**

	7% Regular	20% Occasional	73% Never
	9% Current	42% Ex-smoker	49% Never
	46% 0-1 day	34% 2-4 days	20% 5+ days
	23% 0-2 portions	44% 3-4 portions	33% 5+ portions
	38% Low	46% Average	16% High

**Table 8. Adjusted proportion of retired 50+ year olds who agreed\* with each public health statement, compared with the nationally representative sample**

Public Health Statements		Retired 50+ year olds	Nationally representative sample	
Policies	The NHS should spend less on treating illness and more on preventing it	53%	53%	
	Advertising of alcohol should be banned to reduce alcohol problems	52%	47%	
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	79%	71%	*
	Healthy foods should cost a bit less and unhealthy foods a bit more	78%	83%	
	Companies and individuals should be made to adopt behaviours to reduce climate change	62%	67%	
	I support 20mph speed limits where they will reduce road traffic injuries	80%	76%	
Support structures	I would like more public information campaigns on how to live a healthier life	40%	47%	
	Schools should teach children more about how to live a healthy life	85%	88%	
	Parents should be given professional advice on how to raise their children well	52%	52%	
	A safe and loving childhood is essential to becoming a healthy adult	87%	87%	
	Employers should do more to look after their workers' health	67%	76%	*
	People should keep themselves healthy, it's not the job of public services	88%	77%	*◆
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	74%	69%	
	I worry when I visit hospital that I might pick up an infection	41%	35%	
	When I see my GP they usually talk to me about how to live a healthier life	33%	34%	
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	39%	36%	
Wellbeing	I often feel isolated in my local community	8%	16%	*◆
	I feel safe and secure in my local community	95%	85%	*◆
	Generally, I feel optimistic about life	94%	85%	*
‡Either agreed or strongly agreed		* Significant difference ( $p < .05$ ) between the super profile and nationally representative sample ◆ ≥10% difference between the super profile and nationally representative sample		

# Summary of differences in opinions on public health statements between the eight demographic super profiles and the nationally representative sample

Public Health Statements	Employed 16-29 year olds	Unemployed 16-29 year olds	Students aged 16-29 years	Employed 30-49 year olds	Unemployed 30-49 year olds	Employed 50+ year olds	Unemployed 50+ year olds	Retired 50+ year olds
<b>Public health policies</b>								
The NHS should spend less on treating illness and more on preventing it					* 🏠			
Advertising of alcohol should be banned to reduce alcohol problems		🏠	🏠					
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	*							*
Healthy foods should cost a bit less and unhealthy foods a bit more								
Companies and individuals should be made to adopt behaviours to reduce climate change		🏠		*				
I support 20mph speed limits where they will reduce road traffic injuries	* 🏠			*				
<b>Public health support structures</b>								
I would like more public information campaigns on how to live a healthier life								
Schools should teach children more about how to live a healthy life								
Parents should be given professional advice on how to raise their children well	* 🏠	🏠		*	🏠	*		
A safe and loving childhood is essential to becoming a healthy adult								
Employers should do more to look after their workers' health	*							*
People should keep themselves healthy, it's not the job of public services			* 🏠					* 🏠
<b>Healthcare and public health</b>								
I am confident that if I got ill the NHS would meet my healthcare needs	*	🏠		*				
I worry when I visit hospital that I might pick up an infection			* 🏠					
When I see my GP they usually talk to me about how to live a healthier life		🏠						
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life								
<b>Wellbeing</b>								
I often feel isolated in my local community		🏠		* 🏠	* 🏠	* 🏠	* 🏠	* 🏠
I feel safe and secure in my local community		🏠	🏠	*		*		* 🏠
Generally, I feel optimistic about life		🏠	🏠	* 🏠	* 🏠	* 🏠	*	*

\* The demographic super profile was significantly ( $p < .05$ ) MORE LIKELY to agree than the nationally representative sample

🏠 The demographic super profile was  $\geq 10\%$  MORE LIKELY to agree than the nationally representative sample

\* The demographic super profile was significantly ( $p < .05$ ) LESS LIKELY to agree than the nationally representative sample

🏠 The demographic super profile was  $\geq 10\%$  LESS LIKELY to agree more than the nationally representative sample

# Binge drinking frequency

Across all participants, 11% reported binge drinking regularly (weekly or daily), 47% reported binge drinking occasionally (monthly or less), and 43% reported never binge drinking (including those who never drink alcohol). Table 10 shows the proportion of participants that agreed with each public health statement based on their binge drinking frequency (see Appendix Table A-4 for 95% confidence intervals).

Greater support for public health intervention was typically found amongst individuals who never engaged in binge drinking, with support decreasing as frequency of binge drinking increased. Compared with those who never binge drink, occasional and regular drinkers were significantly less likely to agree that *advertising of alcohol should be banned to reduce alcohol problems*, and that *companies and individuals should be made to adopt behaviours to reduce climate change*. Regular binge drinkers were significantly less likely than occasional binge drinkers or those who never binge drink to agree *healthy foods should cost less and unhealthy foods a bit more*.

Those who never binge drink were significantly more likely to agree that *employers should do more to look after their workers' health* and that *a safe and loving childhood is essential to becoming a healthy adult*, relative to those who drink weekly. Finally, those who never binge drink were significantly more likely to agree that they *feel isolated in their local community* than both regular and occasional drinkers.



**Table 10. Adjusted proportion who agreed\* with each public health statement depending on binge drinking frequency**

Public Health Statements		Regular (n=364)	Occasional (n=1549)	Never (n=1421)
Policies	The NHS should spend less on treating illness and more on preventing it	53%	53%	52%
	Advertising of alcohol should be banned to reduce alcohol problems	41% ●	42% ◆	56% ●◆
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	68%	72%	73%
	Healthy foods should cost a bit less and unhealthy foods a bit more	78% +●	85% +	85% ●
	Companies and individuals should be made to adopt behaviours to reduce climate change	62% ●	66% ◆	71% ●◆
	I support 20mph speed limits where they will reduce road traffic injuries	76%	77%	76%
Support structures	I would like more public information campaigns on how to live a healthier life	43%	49%	48%
	Schools should teach children more about how to live a healthy life	88%	88%	89%
	Parents should be given professional advice on how to raise their children well	52%	52%	53%
	A safe and loving childhood is essential to becoming a healthy adult	84% ●	87%	90% ●
	Employers should do more to look after their workers' health	72% +●	78% +	79% ●
	People should keep themselves healthy, it's not the job of public services	77%	78%	76%
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	67%	72% ◆	69% ◆
	I worry when I visit hospital that I might pick up an infection	36%	37%	39%
	When I see my GP they usually talk to me about how to live a healthier life	36%	33%	32%
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	38%	35%	34%
Wellbeing	I often feel isolated in my local community	13% ●	15% ◆	20% ●◆
	I feel safe and secure in my local community	83%	87%	85%
	Generally, I feel optimistic about life	83%	88%	84%
*Either agreed or strongly agreed		+ significant difference between those who binge drink alcohol regularly and those who binge drink alcohol occasionally ● significant difference between those who binge drink alcohol regularly and those who never binge drink alcohol ◆ significant difference between those who binge drink alcohol occasionally and those who never binge drink alcohol		

# Smoking status

Across all participants, 14% were current smokers, 28% were ex-smokers and 58% had never smoked. Table 11 shows the proportion of respondents who agreed with each public health statement based on their smoking status (see Appendix Table A-5).

Significant differences were found in opinions on public health policies and in wellbeing statements. Individuals who have never smoked and ex-smokers were significantly more likely to agree with policy approaches such as *banning advertising of alcohol and unhealthy foods, changing behaviour to reduce climate change and introducing 20 mph speed limits* than current smokers. Compared with those who have never smoked, current smokers were also significantly less likely to agree that *people are responsible for their own health, it's not the job of public services*.

Although not significantly different, current smokers were more likely to agree that *GPs and health professionals speak to them about how to live a healthier life* than ex-smokers and non-smokers. However, current smokers were significantly less likely than ex-smokers and those who have never smoked to agree that *the NHS would look after them if they got ill*.

Current smokers were significantly more likely to agree that they *feel isolated in their local community* than ex-smokers and those who have never smoked. They also felt significantly *less safe and secure in their local community* and *less optimistic about life*.



**Table 11. Adjusted proportion who agreed\* with each public health statement depending on their smoking status**

Public Health Statements		Current (n=459)	Ex-smoker (n=943)	Never (n=1940)
Policies	The NHS should spend less on treating illness and more on preventing it	49%+	56%+	53%
	Advertising of alcohol should be banned to reduce alcohol problems	39%+●	50%+	51%●
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	67%●	70%◆	75%●◆
	Healthy foods should cost a bit less and unhealthy foods a bit more	78%+●	85%+	85%●
	Companies and individuals should be made to adopt behaviours to reduce climate change	62%+●	68%+	69%●
	I support 20mph speed limits where they will reduce road traffic injuries	71%+●	79%+	78%●
Support structures	I would like more public information campaigns on how to live a healthier life	45%	48%	49%
	Schools should teach children more about how to live a healthy life	89%	88%	88%
	Parents should be given professional advice on how to raise their children well	51%	54%	52%
	A safe and loving childhood is essential to becoming a healthy adult	84%	87%	88%
	Employers should do more to look after their workers' health	75%	77%	77%
	People should keep themselves healthy, it's not the job of public services	73%●	78%	80%●
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	64%+●	71%+	71%●
	I worry when I visit hospital that I might pick up an infection	38%	39%◆	35%◆
	When I see my GP they usually talk to me about how to live a healthier life	37%	34%	33%
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	39%	35%	35%
Wellbeing	I often feel isolated in my local community	23%+●	14%+	12%●
	I feel safe and secure in my local community	80%●	86%	88%●
	Generally, I feel optimistic about life	78%+●	88%+	88%●
*Either agreed or strongly agreed		+ significant difference between current smokers and ex-smokers ● significant difference between current smokers and those who had never smoked ◆ significant difference between ex-smokers and those who had never smoked		



# Physical activity levels

Across all participants, 38% reported engaging in physical activity on 0-1 days a week, 43% on 2-4 days and 19% on 5+ days. Table 12 shows the proportion agreeing with each public health statement based on physical activity levels (see Appendix Table A-6).

Those who engaged in physical activity 2-4 days a week were significantly more likely than those who were less physically active to agree that *companies and individuals should be made to adopt behaviours to reduce climate change*, that *schools should teach children more about how to live a healthy life*, that *employers should do more to look after their workers' health* and that *people should keep themselves healthy, it's not the job of public services*. Those who engaged in physical activity 5+ days a week were also significantly more likely than those with the lowest activity levels to agree that *people should keep themselves healthy*. However, they were significantly less likely than those who did 2-4 days to agree that *schools should teach children more about how to live a healthy life*.

Significant differences were found across all the wellbeing statements. Compared with those doing higher levels of physical activity, individuals reporting 0-1 days were more likely to agree that they *often feel isolated in their local community* and less likely to agree that they *feel safe and secure in their community*, and *feel optimistic about life*.



**Table 12. Adjusted proportion who agreed\* with each public health statement depending on physical activity levels**

Public Health Statements		0-1 days (n=1272)	2-4 days (n=1415)	5+ days (n=644)
Policies	The NHS should spend less on treating illness and more on preventing it	52%	55%	51%
	Advertising of alcohol should be banned to reduce alcohol problems	48%	46%	47%
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	71%	73%	71%
	Healthy foods should cost a bit less and unhealthy foods a bit more	82%	84%	84%
	Companies and individuals should be made to adopt behaviours to reduce climate change	64%+	70%+	68%
	I support 20mph speed limits where they will reduce road traffic injuries	76%	78%	75%
Support structures	I would like more public information campaigns on how to live a healthier life	48%	49%	45%
	Schools should teach children more about how to live a healthy life	87%+	90%+◆	86%◆
	Parents should be given professional advice on how to raise their children well	52%	54%	50%
	A safe and loving childhood is essential to becoming a healthy adult	87%	88%	85%
	Employers should do more to look after their workers' health	76%	78%	75%
	People should keep themselves healthy, it's not the job of public services	74%+●	79%+	80%●
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	69%	70%	68%
	I worry when I visit hospital that I might pick up an infection	38%	36%	36%
	When I see my GP they usually talk to me about how to live a healthier life	32%	36%	34%
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	35%	38%	35%
Wellbeing	I often feel isolated in my local community	23%+●	13%+	13%●
	I feel safe and secure in my local community	80%+	90%+◆	83%◆
	Generally, I feel optimistic about life	76%+●	89%+	89%●
*Either agreed or strongly agreed		+ significant difference between those who engage in physical activity on 0-1 days and 2-4 days ● significant difference between those who engage in physical activity on 0-1 days and 5+ days ◆ significant difference between those who engage in physical activity on 2-4 days and 5+ days		

# Fruit and vegetable consumption

Across all participants, 26% reported consuming 0-2 portions of fruit and vegetables a day, 45% consuming 3-4 portions and 30% consuming 5+ portions. Table 13 shows the proportion agreeing with each public health statement based on fruit and vegetable consumption (see Appendix Table A-7).

Significant differences were found across policies and wellbeing statements; as daily fruit and vegetable consumption increased, agreement with the statements also increased. For example, the proportion agreeing that *the NHS should spend less on treating illness and more on preventing it* increased significantly between each consumption category, rising from 47% in those with the lowest consumption levels to 57% in those with the highest levels. The same pattern was found for *advertising of unhealthy foods; companies and individuals adopting behaviours to reduce climate change; and support for 20mph speed limits*.

Significant differences were also found across the wellbeing statements. For example, those who consumed 0-2 portions of fruit and vegetables a day were significantly more likely to agree that they *feel isolated in their local community* than those with higher levels of consumption.



**Table 13. Adjusted proportion who agreed\* with each public health statement depending on fruit and vegetable consumption**

Public Health Statements		0-2 portions (n=857)	3-4 portions (n=1486)	5+ portions (n=999)
Policies	The NHS should spend less on treating illness and more on preventing it	47% +●	53% +◆	57% ●◆
	Advertising of alcohol should be banned to reduce alcohol problems	45%	46%	49%
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	64% +●	71% +◆	76% ●◆
	Healthy foods should cost a bit less and unhealthy foods a bit more	80% ●	82%	85% ●
	Companies and individuals should be made to adopt behaviours to reduce climate change	59% +●	69% +◆	73% ●◆
	I support 20mph speed limits where they will reduce road traffic injuries	70% +●	77% +◆	81% ●◆
Support structures	I would like more public information campaigns on how to live a healthier life	45%	46%	50%
	Schools should teach children more about how to live a healthy life	87%	88%	90%
	Parents should be given professional advice on how to raise their children well	47% +●	52% +	55% ●
	A safe and loving childhood is essential to becoming a healthy adult	85% +	89% +	88%
	Employers should do more to look after their workers' health	72% ●	76% ◆	80% ●◆
	People should keep themselves healthy, it's not the job of public services	77%	78%	76%
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	63% +●	70% +	73% ●
	I worry when I visit hospital that I might pick up an infection	38%	36%	36%
	When I see my GP they usually talk to me about how to live a healthier life	34%	33%	34%
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	35%	36%	37%
Wellbeing	I often feel isolated in my local community	21% +●	15% +	12% ●
	I feel safe and secure in my local community	74% +●	86% +◆	92% ●◆
	Generally, I feel optimistic about life	75% +●	88% +	91% ●
*Either agreed or strongly agreed		+ significant difference between those who consume 0-2 portions and 3-4 portions of fruit and vegetables daily ● significant difference between those who consume 0-2 portions and 5+ portions of fruit and vegetables daily ◆ significant difference between those who consume 3-4 portions and 5+ portions of fruit and vegetables daily		



# Self-reported general health

Across all participants, 26% were identified as being in low general health, 50% in average general health, and 30% in high general health. Table 14 shows the proportion agreeing with each public health statement based on their self-reported general health (see Appendix Table A-8).

Significant differences were found between general health levels and views on policies, healthcare and wellbeing. As individuals' health improved, agreement with the statements tended to increase. For example, the proportion who agreed that the *NHS should spend less on treating illness and more on preventing it* increased significantly between each health level, rising from 46% in those with low general health to 59% in those with high general health.

Individuals with low general health were significantly less likely to agree that they were *confident that if they got ill the NHS would meet their healthcare needs* than those with average or high general health. However, those with low or average general health were more likely to agree that *GPs talked to them about how to live a healthier life* than those with high general health.

Moreover, those with low general health were significantly more likely to agree that they feel *isolated in their community* and significantly less likely to agree that they *feel safe and secure in their community* and *optimistic about life* than those with average and high general health.





**Table 14. Adjusted proportion who agreed<sup>‡</sup> with each public health statement depending on general health**

Public Health Statements		Low (n=869)	Average (n=1662)	High (n=808)
Policies	The NHS should spend less on treating illness and more on preventing it	46%+	54%+◆	59%●◆
	Advertising of alcohol should be banned to reduce alcohol problems	47%	48%	46%
	Advertising of unhealthy foods to children should be banned to reduce childhood obesity	66%+●	71%+	74%●
	Healthy foods should cost a bit less and unhealthy foods a bit more	83%	84%	83%
	Companies and individuals should be made to adopt behaviours to reduce climate change	64%+●	69%+	69%●
	I support 20mph speed limits where they will reduce road traffic injuries	73%	77%	77%
Support structures	I would like more public information campaigns on how to live a healthier life	48%	48%	46%
	Schools should teach children more about how to live a healthy life	88%	89%	88%
	Parents should be given professional advice on how to raise their children well	48%+●	53%+	54%●
	A safe and loving childhood is essential to becoming a healthy adult	85%	88%	88%
	Employers should do more to look after their workers' health	76%●	78%	74%●
	People should keep themselves healthy, it's not the job of public services	72%●	76%◆	82%●◆
Healthcare	I am confident that if I got ill the NHS would meet my healthcare needs	61%+●	72%+	74%●
	I worry when I visit hospital that I might pick up an infection	39%●	38%	34%●
	When I see my GP they usually talk to me about how to live a healthier life	37%●	35%◆	30%●◆
	When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	41%+●	36%+◆	32%●◆
Wellbeing	I often feel isolated in my local community	28%+●	16%+◆	7%●◆
	I feel safe and secure in my local community	74%+●	85%+◆	93%●◆
	Generally, I feel optimistic about life	67%+●	87%+◆	95%●◆

<sup>‡</sup>Either agreed or strongly agreed

- + significant difference between those who engage in physical activity on 0-1 days and 2-4 days
- significant difference between those who engage in physical activity on 0-1 days and 5+ days
- ◆ significant difference between those who engage in physical activity on 2-4 days and 5+ days

# Summary of differences in opinions on public health statements by health-related behaviours

Public Health Statements	Binge drinking frequency 	Smoking status 	Physical activity levels 	Fruit and vegetable consumption 	General health 
<b>Public health policies</b>					
The NHS should spend less on treating illness and more on preventing it	—	—	—	↑	↑
Advertising of alcohol should be banned to reduce alcohol problems	↑	↑	—	↑	—
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	↑	↑	—	↑	↑
Healthy foods should cost a bit less and unhealthy foods a bit more	↑	↑	—	↑	—
Companies and individuals should be made to adopt behaviours to reduce climate change	↑	↑	—	↑	↑
I support 20mph speed limits where they will reduce road traffic injuries	—	↑	—	↑	↑
<b>Public health support structures</b>					
I would like more public information campaigns on how to live a healthier life	—	↑	—	↑	—
Schools should teach children more about how to live a healthy life	—	—	—	↑	—
Parents should be given professional advice on how to raise their children well	—	—	—	↑	↑
A safe and loving childhood is essential to becoming a healthy adult	↑	↑	—	↑	↑
Employers should do more to look after their workers' health	↑	—	—	↑	—
People should keep themselves healthy, it's not the job of public services	—	↑	↑	—	↑
<b>Healthcare and public health</b>					
I am confident that if I got ill the NHS would meet my healthcare needs	—	↑	—	↑	↑
I worry when I visit hospital that I might pick up an infection	↑	—	—	—	↓
When I see my GP they usually talk to me about how to live a healthier life	↓	↓	—	—	↓
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	↓	↓	—	—	↓
<b>Wellbeing</b>					
I often feel isolated in my local community	↑	↓	↓	↓	↓
I feel safe and secure in my local community	—	↑	—	↑	↑
Generally, I feel optimistic about life	—	↑	↑	↑	↑



Positive trend towards greater agreement among those with healthier behaviours (i.e. never smoking, never binge drinking, physically active, eating fruit and vegetables)



Negative trend towards lower agreement among those with healthier behaviours (i.e. never smoking, never binge drinking, physically active, eating fruit and vegetables)



No clear pattern of opinion based on health-related behaviour.



Coloured box indicates a significant difference ( $p < 0.05$ ) within the health-related behaviour.

## Discussion

**The Stay Well in Wales survey was the first survey in Wales to seek residents' opinions on public health** in order to inform the development of a long-term national public health strategy. Findings from the nationally representative household survey highlighted public support for prevention measures to improve public health.<sup>9</sup> This second report has incorporated findings from the wider online survey which was open to all Welsh residents aged 16 years and over. Thus, the findings from this survey provide insight into the views of over 3,000 people in Wales. However, there are limitations in the conclusions that can be drawn from the data. Participation in the survey was voluntary and findings may therefore be biased towards those that have an interest in public health; individuals who completed the face-to-face interviews were provided with an opportunity to opt-out and those who completed the online survey would have had to self-initiate their completion of the survey. All responses were self-reported by participants, meaning the data was subjectively collected and participants could have responded inaccurately. Responses to all questions were reduced into a smaller number of categories than posed by the original question, which may mask some relationships. However, findings provide some insights into how individuals' views on public health in Wales vary across demographic groups.

Across six of the eight demographic super profiles explored (based on age and employment status), the statement with the greatest level of support was *healthy foods should cost a bit less and unhealthy foods a bit more*. Unemployed 30-49 year olds and retired 50+ year olds were most in favour of *20mph speed limit restrictions where they will reduce road traffic injuries*. Five of eight demographic super profiles were confident that the *NHS would meet their healthcare needs*; interestingly unemployed 16-29 year olds were least confident (59%) while employed 16-29 year olds were most confident (79%). The opposite pattern was found for the statement *when I see my GP they usually talk to me about how to live a healthier life*, with unemployed 16-29 year olds being most likely to agree (44%) and employed 16-29 year olds least likely to agree (30%). However, due to small sample sizes in the unemployed 16-29 year old super profile, any conclusions should be interpreted with care.

**A contrast in wellbeing between demographic super profiles was evident.** For example, whilst nearly all employed 30-49 year olds agreed they were *generally optimistic about life* (96%), this dropped to just 68% among unemployed 30-49 year olds. The greatest difference in agreement with the statement *I often feel isolated in my local community* was found among those aged 50+ years; 35% of those aged 50+ who were unemployed felt isolated compared with only 4% of those who were employed. These differences show a strong association between employment status individuals' perspectives and lives.<sup>12</sup> Moreover, the low wellbeing can also prevent people from working, therefore the direction of the association is underdetermined.

**Distinctive differences in public opinion were found based on health-related behaviours.**

Individuals who never binge drink and had never smoked were most likely to agree that *advertising of alcohol should be banned to reduce alcohol problems* (56% and 51%, respectively), whilst those who regularly binge drink and those who currently smoke were least likely to agree (41% and 39%, respectively). However, for physical activity and fruit and vegetable consumption, the largest differences in agreement were found for the statement *companies and individuals should be made to adopt behaviours to reduce climate change*; those who engaged in physical activity 2-4 days a week and those who consumed 5+ portions of fruit and vegetables per day were most likely to agree (70% and 73%, respectively), and those reporting little activity (0-1 days) and little fruit and vegetable consumption (0-2 portions) were least likely to agree (64% and 59%, respectively).

Large differences in opinions were found based on fruit and vegetable consumption and self-reported general health; as individuals' fruit and vegetable consumption and general health improved, the level of agreement with the public health statements tended to increase. Agreement with *banning advertising of unhealthy foods to reduce childhood obesity* varied by general health; those with high general health were most likely to agree (74%) while those with low general health were least likely to agree (66%). Differences were also found across wellbeing statements. Those who were most likely to *feel isolated in their community* were those who currently smoke (23%), do least physically activity (0-1 days; 23%), and never binge drink (20%). For fruit and vegetable consumption, a large difference in agreement was found for *feeling safe and secure in their community*; those who consumed most portions a day were substantially more likely to agree with this statement (92%) than those consuming the least portions (74%). Finally, individuals with low general health were much less likely than individuals with high general health to agree that generally they *feel optimistic about life* (67% and 95%, respectively).

**In summary, this study begins to identify how opinions on public health in Wales vary by age, employment status and health-related behaviours.**<sup>13</sup> It reveals how, often, the strongest resistance to public health measures can come from those with most to gain from their implementation. The information should provide the basis for more targeted public health messaging and interventions and act as a baseline against which changes in public opinion on population health measures can be measured.

## References

- Diepeveen S, Ling T, Suhrcke M, et al. Public acceptability of government intervention to change health-related behaviours: a systematic review and narrative synthesis. *BMC Public Health* 2013; 13: 756.
- Welsh Government. Wellbeing of Future Generations (Wales) Act 2015. Cardiff: Welsh Government; 2015. Retrieved from: <http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en>. Accessed 17/09/2018.
- Sharp CA, Hughes K, Bellis MA. *Stay Well in Wales: The public's views on public health. Findings from the nationally representative household survey*. Wrexham: Bangor University and Public Health Wales; 2018.
- Ormston R, Curtice J. (eds.) *British Social Attitudes: The 32nd Report*, London: NatCen Social Research; 2015. Retrieved from: [www.bsa.natcen.ac.uk](http://www.bsa.natcen.ac.uk). Accessed 17/09/2018.
- Granville Valence Public Health. *US Community Health Opinion Survey*; 2011. Retrieved from: [https://gvph.org/wp-content/uploads/2014/08/CHA-Appendix-L6\\_2011HealthOpinionSurvey\\_VC\\_06-21-11.pdf](https://gvph.org/wp-content/uploads/2014/08/CHA-Appendix-L6_2011HealthOpinionSurvey_VC_06-21-11.pdf). Accessed 17/09/2018.
- Public Health England. *Public awareness and opinion survey. Ipsos MORI*, 2017. Retrieved from: <https://www.ipsos.com/ipsos-mori/en-uk/public-health-england-public-awareness-and-opinion-survey-2017>. Accessed 17/09/2018.
- Bush K, Kivlahan DR, McDonell MB, et al. The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. *Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test*. *Arch Intern Med*, 1998; 158: 1789-1795.
- EuroQol Research Foundation. *EQ-5D-5L User guide. Basic information on how to use the EQ-5D-5L*. Rotterdam: EuroQol Research Foundation; 2015. Retrieved from: [https://euroqol.org/wp-content/uploads/2016/09/EQ-5D-5L\\_UserGuide\\_2015.pdf](https://euroqol.org/wp-content/uploads/2016/09/EQ-5D-5L_UserGuide_2015.pdf).
- Sharp CA, Hughes K, Bellis MA. *Stay Well in Wales: The public's views on public health. Findings from the nationally representative household survey. Appendix*. Wrexham: Bangor University and Public Health Wales; 2018.
- Vansteenkiste M, Lens W, De Witte S, etc. The 'why' and 'why not' of job search behaviour: their relation to searching, unemployment experience, and wellbeing. *European Journal of Social Psychology*, 2004; 34: 345-363.
- Dawson C, Hinks T, Veliziotis M. 'Choose to Be Optimistic, it Feels Better? Evidence of optimism on employment utility. *Bulletin of Economic Research* 2017; 69: 428-436.
- van der Noordt M, IJzelenberg H, Droomers M, Proper KI. (2014). Health effects of employment: a systematic review of prospective studies. *BMJ Occup Environ Med* 2014; 71: 730-736.
- Blendon RR, Benson JJ, Steelfisher GK, Connolly JJ. Americans' conflicting views about the public health system, and how to shore up support. *Health Affairs*, 2010; 29: 2033-2040.

## Appendix: Data Tables

Table A-1. Demographics of the combined sample (aged 16 years and over)

		n	%
<b>Gender</b>	Male	929	28.1
	Female	2381	71.9
<b>Age (years)</b>	16-29	450	13.6
	30-49	1395	42.1
	50+	1465	44.3
<b>Employment status</b>	Employed	2427	73.3
	Unemployed	248	7.5
	Student	108	3.3
	Retired	527	15.9
<b>Binge drinking frequency</b> (missing 10)	Never	1410	42.7
	Occasional	1530	46.4
	Regular	360	10.9
<b>Smoking status</b> (missing 3)	Never	1927	58.3
	Ex-smoker	926	28.0
	Current	454	13.7
<b>Physical activity levels</b> <b>(days per week)</b>	0-1	1272	38.2
	2-4	1415	42.5
	5+	644	19.3
<b>Fruit and vegetable consumption (portions per day)</b> (missing 3)	0-2	847	25.6
	3-4	1470	44.5
	5+	990	29.9
<b>Self-reported general health</b> (missing 6)	Low	862	26.1
	Average	1612	48.8
	High	830	25.1
<b>Survey method</b>	Household	1001	29.9
	Online	2309	70.1

**Table A-2. Proportion (weighted; 95% confidence interval) of the nationally representative sample who agreed<sup>‡</sup>, had no opinion<sup>⊙</sup> and disagreed<sup>⊙</sup> with each public health statement<sup>‡</sup>**

Public Health Statements	Nationally representative sample % (95% CI)		
	Agreed	No opinion	Disagreed
<b>Public health policies</b>			
The NHS should spend less on treating illness and more on preventing it	53% (50-56)	32% (29-35)	15% (13-17)
Advertising of alcohol should be banned to reduce alcohol problems	47% (44-50)	17% (15-19)	15% (11-15)
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	71% (68-73)	27% (24-30)	26% (23-29)
Healthy foods should cost a bit less and unhealthy foods a bit more	83% (81-85)	12% (10-14)	5% (4-7)
Companies and individuals should be made to adopt behaviours to reduce climate change	67% (64-70)	24% (21-27)	9% (8-11)
I support 20mph speed limits where they will reduce road traffic injuries	76% (73-78)	12% (10-14)	12% (11-15)
<b>Public health support structures</b>			
I would like more public information campaigns on how to live a healthier life	47% (44-50)	26% (23-29)	27% (24-30)
Schools should teach children more about how to live a healthy life	88% (85-90)	7% (5-9)	6% (4-7)
Parents should be given professional advice on how to raise their children well	52% (48-55)	25% (23-28)	23% (21-26)
A safe and loving childhood is essential to becoming a healthy adult	87% (85-89)	9% (7-11)	4% (3-5)
Employers should do more to look after their workers' health	76% (74-79)	16% (14-18)	8% (6-10)
People should keep themselves healthy, it's not the job of public services	77% (74-79)	17% (15-19)	7% (5-8)
<b>Healthcare and public health</b>			
I am confident that if I got ill the NHS would meet my healthcare needs	69% (66-71)	18% (15-20)	14% (12-16)
I worry when I visit hospital that I might pick up an infection	35% (32-38)	17% (15-20)	48% (45-51)
When I see my GP they usually talk to me about how to live a healthier life	34% (31-37)	16% (14-19)	50% (47-53)
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	36% (33-39)	21% (19-24)	43% (40-47)
<b>Wellbeing</b>			
I often feel isolated in my local community	16% (14-19)	13% (11-15)	71% (68-74)
I feel safe and secure in my local community	85% (82-87)	10% (8-12)	5% (4-7)
Generally, I feel optimistic about life	85% (82-87)	10% (8-12)	5% (4-7)

<sup>‡</sup>Either agreed or strongly agreed; <sup>⊙</sup>neither agree nor disagree; <sup>⊙</sup>either disagreed or strongly disagreed

<sup>‡</sup>Due to small differences in weighting and other mathematical processes, national percentages presented in this report may differ by up to 1% from those presented in the first Stay Well in Wales Report.



**Table A-3. Adjusted proportion (estimated marginal mean; 95% confidence interval) within each demographic super profile who agreed\* with each public health statement**

Public Health Statements	<i>p</i>	16-29 employed	16-29 un- employed	16-29 student	30-49 employed	30-49 un- employed	50+ employed	50+ un- employed	50+ retired
<b>Public health policies</b>									
The NHS should spend less on treating illness and more on preventing it	<b>0.007</b>	54% (49-60)	52% (36-68)	60% (50-69)	59% (55-62)	39% (30-49)	57% (54-61)	49% (40-59)	53% (48-57)
Advertising of alcohol should be banned to reduce alcohol problems	<b>&lt;0.001</b>	42% (36-47)	59% (42-73)	35% (26-44)	41% (38-45)	47% (37-56)	49% (45-52)	53% (44-62)	52% (48-56)
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	<b>&lt;0.001</b>	65% (59-70)	62% (45-76)	63% (53-71)	73% (71-76)	63% (53-72)	76% (73-79)	80% (71-86)	79% (75-82)
Healthy foods should cost a bit less and unhealthy foods a bit more	<b>0.049</b>	85% (80-88)	79% (61-90)	85% (76-90)	85% (83-87)	83% (74-89)	83% (80-85)	87% (79-92)	78% (74-81)
Companies and individuals should be made to adopt behaviours to reduce climate change	<b>&lt;0.001</b>	73% (68-78)	54% (38-69)	61% (51-69)	75% (72-77)	75% (66-82)	69% (66-73)	63% (54-72)	62% (58-66)
I support 20mph speed limits where they will reduce road traffic injuries	<b>&lt;0.001</b>	66% (60-72)	68% (51-83)	71% (61-79)	82% (80-85)	85% (76-92)	77% (74-80)	79% (70-87)	80% (76-83)
<b>Public health support structures</b>									
I would like more public information campaigns on how to live a healthier life	<b>0.031</b>	53% (47-58)	51% (35-66)	46% (37-56)	46% (43-49)	42% (33-52)	44% (41-48)	51% (42-61)	40% (36-44)
Schools should teach children more about how to live a healthy life	0.079	90% (86-92)	85% (71-93)	93% (87-96)	88% (86-90)	84% (76-89)	87% (84-89)	90% (84-94)	85% (81-87)
Parents should be given professional advice on how to raise their children well	<b>&lt;0.001</b>	63% (57-68)	33% (19-50)	57% (47-66)	59% (56-62)	41% (32-50)	59% (56-63)	52% (42-61)	52% (48-57)
A safe and loving childhood is essential to becoming a healthy adult	0.245	85% (80-89)	91% (74-98)	82% (73-88)	89% (87-91)	85% (77-91)	87% (84-89)	89% (81-94)	87% (83-90)
Employers should do more to look after their workers' health	<b>&lt;0.001</b>	85% (81-88)	71% (54-83)	77% (68-83)	80% (77-82)	78% (69-85)	77% (73-79)	73% (64-81)	67% (63-71)
People should keep themselves healthy, it's not the job of public services	<b>&lt;0.001</b>	72% (66-77)	74% (56-88)	63% (53-72)	81% (78-84)	74% (64-83)	82% (78-85)	79% (69-88)	88% (85-92)
<b>Healthcare and public health</b>									
I am confident that if I got ill the NHS would meet my healthcare needs	<b>&lt;0.001</b>	79% (74-84)	59% (43-75)	73% (64-82)	75% (72-78)	63% (53-72)	67% (63-71)	62% (52-71)	74% (70-78)
I worry when I visit hospital that I might pick up an infection	<b>&lt;0.001</b>	30% (25-36)	39% (25-56)	15% (10-24)	34% (31-37)	44% (34-53)	36% (33-40)	44% (34-53)	41% (36-45)
When I see my GP they usually talk to me about how to live a healthier life	0.481	30% (25-35)	44% (30-61)	33% (25-43)	31% (28-33)	34% (26-43)	31% (28-35)	38% (30-48)	33% (29-37)
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	0.941	36% (31-41)	32% (21-49)	37% (28-47)	36% (33-39)	37% (29-46)	37% (34-41)	35% (28-45)	39% (35-43)
<b>Wellbeing</b>									
I often feel isolated in my local community	<b>&lt;0.001</b>	11% (7-16)	32% (17-49)	14% (8-23)	6% (4-8)	30% (21-39)	4% (2-6)	35% (26-45)	8% (5-11)
I feel safe and secure in my local community	<b>&lt;0.001</b>	87% (82-91)	66% (49-82)	75% (66-84)	93% (91-96)	77% (67-85)	93% (90-95)	83% (73-91)	95% (91-98)
Generally, I feel optimistic about life	<b>&lt;0.001</b>	91% (86-95)	72% (55-87)	74% (64-82)	96% (93-98)	68% (58-78)	95% (93-98)	76% (66-85)	94% (90-97)

\*Either agreed or strongly agreed



**Table A-4. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed<sup>†</sup> with each public health statement by binge drinking frequency, with pairwise comparisons (*p*-values)**

Public health Statements	Adjusted proportion				Pairwise comparisons		
	<i>p</i>	Regular	Occasional	Never	Regular: Occasional	Regular: Never	Occasional: Never
Public health policies							
The NHS should spend less on treating illness and more on preventing it	0.935	53% (47-59)	53% (49-57)	52% (49-56)	0.972	0.800	0.736
Advertising of alcohol should be banned to reduce alcohol problems	<0.001	41% (36-47)	42% (38-46)	56% (52-60)	0.787	<0.001	<0.001
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	0.363	68% (62-74)	72% (68-75)	73% (69-76)	0.282	0.164	0.593
Healthy foods should cost a bit less and unhealthy foods a bit more	0.010	78% (73-83)	85% (82-87)	85% (82-87)	0.008	0.011	0.932
Companies and individuals should be made to adopt behaviours to reduce climate change	0.002	62% (56-68)	66% (63-70)	71% (68-75)	0.148	0.002	0.008
I support 20mph speed limits where they will reduce road traffic injuries	0.653	76% (71-81)	77% (74-81)	76% (72-79)	0.739	0.782	0.357
Public health support structures							
I would like more public information campaigns on how to live a healthier life	0.161	43% (37-49)	49% (45-53)	48% (48-48)	0.056	0.154	0.492
Schools should teach children more about how to live a healthy life	0.799	88% (84-91)	88% (85-90)	89% (78-91)	0.916	0.747	0.508
Parents should be given professional advice on how to raise their children well	0.899	52% (46-58)	52% (58-56)	53% (49-57)	0.969	0.798	0.652
A safe and loving childhood is essential to becoming a healthy adult	0.023	84% (79-88)	87% (84-90)	90% (87-92)	0.172	0.016	0.076
Employers should do more to look after their workers' health	0.041	72% (66-77)	78% (74-80)	79% (75-81)	0.044	0.018	0.539
People should keep themselves healthy, it's not the job of public services	0.314	77% (71-82)	78% (75-82)	76% (72-79)	0.644	0.592	0.128
Healthcare and public health							
I am confident that if I got ill the NHS would meet my healthcare needs	0.051	67% (61-73)	72% (69-76)	69% (65-72)	0.057	0.569	0.044
I worry when I visit hospital that I might pick up an infection	0.284	36% (31-42)	37% (33-40)	39% (36-43)	0.958	0.305	0.134
When I see my GP they usually talk to me about how to live a healthier life	0.388	36% (31-42)	33% (30-36)	32% (29-36)	0.263	0.180	0.702
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	0.246	38% (33-44)	35% (32-39)	34% (30-37)	0.301	0.109	0.356
Wellbeing							
I often feel isolated in my local community	0.004	13% (8-18)	15% (12-18)	20% (17-24)	0.523	0.011	0.003
I feel safe and secure in my local community	0.249	83% (77-88)	87% (84-90)	85% (82-88)	0.126	0.387	0.316
Generally, I feel optimistic about life	0.070	83% (77-88)	88% (85-91)	84% (81-88)	0.079	0.625	0.055

<sup>†</sup>Either agreed or strongly agreed

**Table A-5. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed\* with each public health statement by smoking status, with pairwise comparisons (*p*-values)**

Public health Statements	Adjusted proportion				Pairwise comparisons		
	<i>p</i>	Regular	Ex-smoker	Never	Current: Ex-smoker	Current: Never	Ex-smoker: Never
Public health policies							
The NHS should spend less on treating illness and more on preventing it	0.062	49% (44-54)	56% (52-60)	53% (49-57)	0.020	0.159	0.136
Advertising of alcohol should be banned to reduce alcohol problems	<0.001	39% (34-44)	50% (46-55)	51% (48-55)	<0.001	<0.001	0.554
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	0.007	67% (62-72)	70% (66-74)	75% (71-78)	0.363	0.007	0.028
Healthy foods should cost a bit less and unhealthy foods a bit more	0.001	78% (73-82)	85% (82-88)	85% (82-87)	0.002	0.001	0.833
Companies and individuals should be made to adopt behaviours to reduce climate change	0.038	62% (57-67)	68% (64-72)	69% (65-72)	0.040	0.013	0.737
I support 20mph speed limits where they will reduce road traffic injuries	0.006	71% (66-75)	79% (75-83)	78% (74-81)	0.002	0.006	0.447
Public health support structures							
I would like more public information campaigns on how to live a healthier life	0.504	45% (40-50)	48% (44-53)	49% (45-52)	0.323	0.248	0.920
Schools should teach children more about how to live a healthy life	0.783	89% (91-85)	88% (86-91)	88% (85-90)	0.927	0.593	0.560
Parents should be given professional advice on how to raise their children well	0.550	51% (46-56)	54% (49-54)	52% (48-56)	0.312	0.641	0.400
A safe and loving childhood is essential to becoming a healthy adult	0.158	84% (80-88)	87% (84-90)	88% (85-90)	0.166	0.067	0.644
Employers should do more to look after their workers’ health	0.611	75% (70-79)	77% (73-80)	77% (74-80)	0.447	0.329	0.832
People should keep themselves healthy, it’s not the job of public services	0.017	73% (68-78)	78% (73-82)	80% (77-84)	0.107	0.006	0.190
Healthcare and public health							
I am confident that if I got ill the NHS would meet my healthcare needs	0.048	64% (59-69)	71% (67-75)	71% (67-74)	0.024	0.020	0.866
I worry when I visit hospital that I might pick up an infection	0.040	38% (33-43)	39% (35-44)	35% (31-38)	0.653	0.191	0.016
When I see my GP they usually talk to me about how to live a healthier life	0.225	37% (32-42)	34% (30-38)	33% (29-36)	0.350	0.098	0.406
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	0.257	39% (34-44)	35% (31-39)	35% (32-38)	0.182	0.108	0.834
Wellbeing							
I often feel isolated in my local community	<0.001	23% (18-28)	14% (1-18)	12% (9-15)	0.002	<0.001	0.298
I feel safe and secure in my local community	0.005	80% (75-85)	86% (82-90)	88% (85-91)	0.035	0.002	0.273
Generally, I feel optimistic about life	<0.001	78% (73-83)	88% (84-92)	88% (85-91)	0.001	<0.001	0.991

\*Either agreed or strongly agreed

**Table A-6. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed\* with each public health statement by physical activity levels, with pairwise comparisons (p-values)**

Public health Statements	Adjusted proportion				Pairwise comparisons		
	<i>p</i>	0-1	2-4	5+	0-1: 3-4	0-1: 5+	2-4: 5+
<b>Public health policies</b>							
The NHS should spend less on treating illness and more on preventing it	0.159	52% (48-56)	55% (51-59)	51% (46-56)	0.127	0.679	0.096
Advertising of alcohol should be banned to reduce alcohol problems	0.736	48% (44-52)	46% (42-50)	47% (42-52)	0.433	0.742	0.761
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	0.547	71% (74-76)	73% (69-76)	71% (66-75)	0.351	0.896	0.368
Healthy foods should cost a bit less and unhealthy foods a bit more	0.164	82% (78-84)	84% (81-87)	84% (80-87)	0.081	0.157	0.976
Companies and individuals should be made to adopt behaviours to reduce climate change	<b>0.004</b>	64% (60-67)	70% (67-73)	68% (63-72)	<b>0.001</b>	0.100	0.295
I support 20mph speed limits where they will reduce road traffic injuries	0.338	76% (72-79)	78% (74-81)	75% (71-79)	0.210	0.865	0.231
<b>Public health support structures</b>							
I would like more public information campaigns on how to live a healthier life	0.367	48% (44-52)	49% (45-53)	45% (41-50)	0.586	0.338	0.156
Schools should teach children more about how to live a healthy life	<b>0.002</b>	87% (85-89)	90% (88-92)	86% (83-89)	<b>0.005</b>	0.401	<b>0.003</b>
Parents should be given professional advice on how to raise their children well	0.144	52% (55-48)	54% (50-58)	50% (45-54)	0.175	0.469	0.065
A safe and loving childhood is essential to becoming a healthy adult	0.182	87% (83-89)	88% (85-91)	85% (81-89)	0.203	0.513	0.091
Employers should do more to look after their workers' health	0.253	76% (72-79)	78% (75-81)	75% (71-79)	0.210	0.645	0.137
People should keep themselves healthy, it's not the job of public services	<b>0.007</b>	74% (70-77)	79% (75-82)	80% (75-84)	<b>0.007</b>	<b>0.008</b>	0.603
<b>Healthcare and public health</b>							
I am confident that if I got ill the NHS would meet my healthcare needs	0.770	69% (65-73)	70% (66-74)	68% (63-73)	0.663	0.734	0.484
I worry when I visit hospital that I might pick up an infection	0.284	38% (34-42)	36% (32-40)	36% (32-41)	0.336	0.435	0.993
When I see my GP they usually talk to me about how to live a healthier life	0.203	32% (29-36)	36% (32-40)	34% (29-38)	0.080	0.651	0.318
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	0.135	35% (31-38)	38% (35-42)	35% (31-39)	0.069	0.978	0.139
<b>Wellbeing</b>							
I often feel isolated in my local community	<b>&lt;0.001</b>	23% (19-27)	13% (1-16)	13% (9-17)	<b>&lt;0.001</b>	<b>&lt;0.001</b>	0.861
I feel safe and secure in my local community	<b>&lt;0.001</b>	80% (76-84)	90% (87-93)	83% (79-88)	<b>&lt;0.001</b>	0.164	<b>0.003</b>
Generally, I feel optimistic about life	<b>&lt;0.001</b>	76% (72-80)	89% (86-92)	89% (84-92)	<b>&lt;0.001</b>	<b>&lt;0.001</b>	0.904

\*Either agreed or strongly agreed

**Table A-7. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed\* with each public health statement by fruit and vegetable consumption, with pairwise comparisons (*p*-values)**

Public health Statements	Adjusted proportion				Pairwise comparisons		
	<i>p</i>	0-2	3-4	5+	0-2: 3-4	0-2: 5+	3-4: 5+
<b>Public health policies</b>							
The NHS should spend less on treating illness and more on preventing it	<0.001	47% (43-51)	53% (49-57)	57% (53-62)	0.008	<0.001	0.050
Advertising of alcohol should be banned to reduce alcohol problems	0.098	45% (41-49)	46% (42-49)	49% (45-54)	0.741	0.057	0.062
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	<0.001	64% (60-68)	71% (68-74)	76% (80-72)	0.001	<0.001	0.007
Healthy foods should cost a bit less and unhealthy foods a bit more	0.014	80% (77-83)	82% (79-85)	85% (82-88)	0.169	0.003	0.055
Companies and individuals should be made to adopt behaviours to reduce climate change	<0.001	59% (55-63)	69% (66-72)	73% (69-77)	<0.001	<0.001	0.028
I support 20mph speed limits where they will reduce road traffic injuries	<0.001	70% (66-74)	77% (74-80)	81% (77-85)	0.001	<0.001	0.028
<b>Public health support structures</b>							
I would like more public information campaigns on how to live a healthier life	0.161	45% (41-49)	46% (43-50)	50% (45-54)	0.547	0.069	0.141
Schools should teach children more about how to live a healthy life	0.173	87% (84-89)	88% (86-90)	90% (87-92)	0.289	0.059	0.294
Parents should be given professional advice on how to raise their children well	0.007	47% (43-52)	52% (48-56)	55% (51-60)	0.027	0.002	0.195
A safe and loving childhood is essential to becoming a healthy adult	0.039	85% (81-88)	89% (86-91)	88% (84-90)	0.013	0.101	0.447
Employers should do more to look after their workers' health	0.001	72% (69-76)	76% (73-79)	80% (77-83)	0.064	<0.001	0.023
People should keep themselves healthy, it's not the job of public services	0.525	77% (73-81)	78% (74-82)	76% (71-80)	0.581	0.646	0.262
<b>Healthcare and public health</b>							
I am confident that if I got ill the NHS would meet my healthcare needs	<0.001	63% (59-68)	70% (66-74)	73% (69-77)	0.004	<0.001	0.125
I worry when I visit hospital that I might pick up an infection	0.508	38% (34-42)	36% (32-40)	36% (32-40)	0.318	0.281	0.850
When I see my GP they usually talk to me about how to live a healthier life	0.878	34% (30-38)	33% (30-37)	34% (30-39)	0.762	0.875	0.622
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	0.620	35% (32-39)	36% (32-39)	37% (33-42)	0.868	0.385	0.406
<b>Wellbeing</b>							
I often feel isolated in my local community	0.001	21% (17-25)	15% (12-19)	12% (9-16)	0.010	<0.001	0.084
I feel safe and secure in my local community	<0.001	74% (70-78)	86% (82-89)	92% (88-95)	<0.001	<0.001	<0.001
Generally, I feel optimistic about life	<0.001	75% (71-79)	88% (85-91)	91% (87-94)	<0.001	<0.001	0.221

\*Either agreed or strongly agreed

**Table A-8. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed<sup>†</sup> with each public health statement by self-reported general health, with pairwise comparisons (*p*-values)**

Public health Statements	Adjusted proportion				Pairwise comparisons		
	<i>p</i>	Low	Average	High	Low: Middle	Low: High	Middle: High
Public health policies							
The NHS should spend less on treating illness and more on preventing it	<0.001	46% (42-50)	54% (50-58)	59% (55-64)	<0.001	<0.001	0.008
Advertising of alcohol should be banned to reduce alcohol problems	0.742	47% (43-51)	48% (44-52)	46% (42-51)	0.631	0.842	0.467
Advertising of unhealthy foods to children should be banned to reduce childhood obesity	0.009	66% (62-70)	71% (68-75)	74% (69-77)	0.020	0.003	0.260
Healthy foods should cost a bit less and unhealthy foods a bit more	0.802	83% (79-86)	84% (81-86)	83% (79-86)	0.534	0.859	0.679
Companies and individuals should be made to adopt behaviours to reduce climate change	0.037	64% (60-68)	69% (65-72)	69% (65-73)	0.018	0.031	0.891
I support 20mph speed limits where they will reduce road traffic injuries	0.222	73% (70-77)	77% (73-80)	77% (73-81)	0.126	0.118	0.789
Public health support structures							
I would like more public information campaigns on how to live a healthier life	0.633	48% (44-52)	48% (44-52)	46% (42-51)	0.798	0.372	0.428
Schools should teach children more about how to live a healthy life	0.576	88% (85-90)	89% (86-91)	88% (85-90)	0.400	0.982	0.392
Parents should be given professional advice on how to raise their children well	0.048	48% (44-52)	53% (49-56)	54% (49-59)	0.041	0.021	0.522
A safe and loving childhood is essential to becoming a healthy adult	0.106	85% (82-88)	88% (85-90)	88% (85-91)	0.064	0.060	0.771
Employers should do more to look after their workers' health	0.123	76% (72-79)	78% (75-81)	74% (70-78)	0.237	0.500	0.055
People should keep themselves healthy, it's not the job of public services	<0.001	72% (68-76)	76% (72-80)	82% (78-86)	0.670	<0.001	0.001
Healthcare and public health							
I am confident that if I got ill the NHS would meet my healthcare needs	<0.001	61% (57-65)	72% (68-75)	74% (70-78)	<0.001	<0.001	0.240
I worry when I visit hospital that I might pick up an infection	0.089	39% (36-44)	38% (34-41)	34% (30-39)	0.354	0.029	0.107
When I see my GP they usually talk to me about how to live a healthier life	0.006	37% (33-41)	35% (32-39)	30% (26-34)	0.472	0.002	0.004
When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life	<0.001	41% (37-45)	36% (32-39)	32% (28-36)	0.009	<0.001	0.035
Wellbeing							
I often feel isolated in my local community	<0.001	28% (24-32)	16% (13-19)	7% (1-4)	<0.001	<0.001	<0.001
I feel safe and secure in my local community	<0.001	74% (70-78)	85% (82-88)	93% (86-96)	<0.001	<0.001	<0.001
Generally, I feel optimistic about life	<0.001	67% (63-71)	87% (84-89)	95% (92-98)	<0.001	<0.001	<0.001

<sup>†</sup>Either agreed or strongly agreed

**Funded by Public Health Wales**

Public Health Wales is an NHS organisation providing professionally independent public health advice and services to protect and improve the health and wellbeing of the population of Wales. Production of this report was funded by Public Health Wales. The funded authors worked collaboratively with Public Health Wales, however, the views in this report should not be assumed the same as those of Public Health Wales.









Public Health Collaborating Unit  
School of Health Sciences  
Bangor University  
Wrexham Technology Park  
Wrexham LL13 7YP  
Tel: +44(0)1248 383519



Policy and International Directorate, a World  
Health Organization Collaborating Centre on  
Investment for Health and Wellbeing  
Public Health Wales  
Clwydian House, Wrexham Technology Park  
Wrexham LL13 7YP  
Tel: +44(0)1978 318413